



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
04.10.2017 Bulletin 2017/40

(51) Int Cl.:
G01C 19/5712 ^(2012.01) **G01C 19/5783** ^(2012.01)
B81B 3/00 ^(2006.01)

(43) Date of publication A2:
11.12.2013 Bulletin 2013/50

(21) Application number: **13170705.1**

(22) Date of filing: **05.06.2013**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
 Designated Extension States:
BA ME

(72) Inventors:
 • **Potasek, David P.**
Burnsville, MN 55306 (US)
 • **Childress, Marcus A.**
Farmington, MN Minnesota 55024 (US)

(30) Priority: **06.06.2012 US 201261656398 P**
29.05.2013 US 201313904578

(74) Representative: **Hall, Matthew Benjamin**
Dehns
St Bride's House
10 Salisbury Square
London EC4Y 8JD (GB)

(71) Applicant: **ROSEMOUNT AEROSPACE INC.**
Burnsville, MN 55306-4898 (US)

(54) **Vibration isolated MEMS structures and methods of manufacture**

(57) A microstructure device has a microstructure (e.g., a circuit card assembly, a printed circuit board, etc.) defining a sensitive axis and one or more isolators con-

figured and adapted to be compliant along the sensitive axis and to be rigid along one or more other axes.

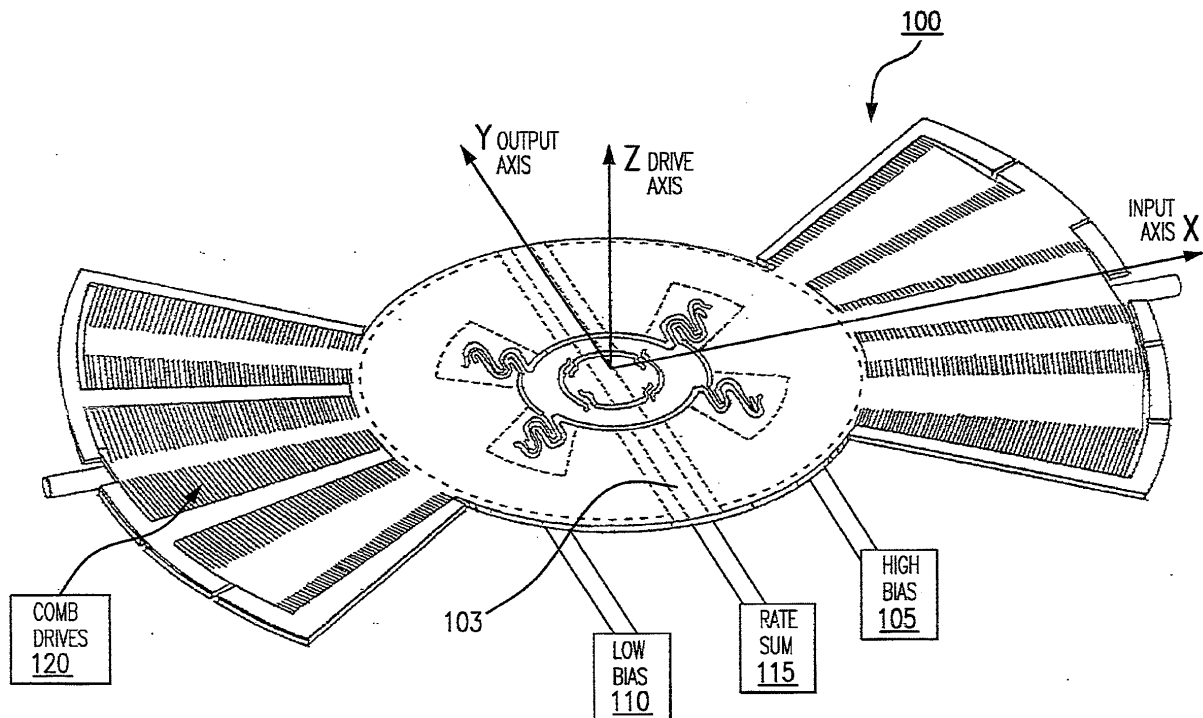


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 13 17 0705

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X,D	US 2012/096943 A1 (POTASEK DAVID P [US] ET AL) 26 April 2012 (2012-04-26) * paragraph [0050]; figures 2, 4 *	1,4-11, 13	INV. G01C19/5712 G01C19/5783 B81B3/00
X	US 2009/282915 A1 (OHTA TAMEHARU [JP] ET AL) 19 November 2009 (2009-11-19) * paragraphs [0005], [0058], [0070], [0092], [0134], [0136], [0156] - paragraphs [0158], [0165]; figures 3, 25A, 29, 32 *	1-13	
X	US 2010/242605 A1 (OFFTERDINGER KLAUS [DE]) 30 September 2010 (2010-09-30) * paragraphs [0003], [0006], [0021], [0023], [0024], [0026]; figure 2 *	1-4, 6-12,14	
A	US 2008/148896 A1 (MAIER ERIC [US] ET AL) 26 June 2008 (2008-06-26) * paragraphs [0004], [0030] *	4	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			G01C
Place of search		Date of completion of the search	Examiner
The Hague		24 August 2017	Philipp, Martine
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/02 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 13 17 0705

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-08-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2012096943 A1	26-04-2012	EP 2444775 A2	25-04-2012
		JP 2012108114 A	07-06-2012
		JP 2016095313 A	26-05-2016
		US 2012096943 A1	26-04-2012
		US 2014000367 A1	02-01-2014

US 2009282915 A1	19-11-2009	DE 102009020838 A1	19-11-2009
		JP 4851555 B2	11-01-2012
		JP 2010181392 A	19-08-2010
		US 2009282915 A1	19-11-2009
		US 2011094303 A1	28-04-2011
		US 2013098155 A1	25-04-2013
US 2014053648 A1	27-02-2014		

US 2010242605 A1	30-09-2010	DE 102009001930 A1	30-09-2010
		FR 2943790 A1	01-10-2010
		IT 1400085 B1	17-05-2013
		US 2010242605 A1	30-09-2010

US 2008148896 A1	26-06-2008	NONE	
